AQUA EZ - CLEAN SWEEP
Product Model # CSF-QT

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: CLEAN SWEEP
Chemical Name: **Polyaluminum Chloride Solution**
Synonyms: **Aluminum Hydroxychloride; Aluminum Chlorohydrate; Aluminum Chloride Hydroxide; Aluminum Chloride Oxide**

Manufacturer's Name: Associated Leisure Products
4400 Steve Reynolds Blvd.
Norcross GA 30093
(770) 381-2022

24-Hour Emergency Telephone Number: **CHEMTREC 1-800-424-9300**

NSF Certified to ANSI/NSF 60

Polyaluminum Chloride Solution complies with the standards of the American Water Works Association B408-93. It has been certified by the National Sanitation Foundation (NSF) under ANSI/NSF 60 for use in the treatment of drinking water at a maximum dosage of 250 ppm or mg/L (dry basis).

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS Number	OSHA PEL	ACGIH TLV
Polyaluminum Chloride $\{Al_2(OH)_nCl_{6-n}\}_m$ * x H_2O Percent: 33	1327-41-9	Aluminum, metal (as Al) Total dust 15 mg/m³ 8 Hr. TWA Respirable fraction 5 mg/m³ 8 Hr. TWA	Soluble salts, (as Al) 2 mg/m³ 8 Hr. TWA

IDLH concentrations have not been determined.

3. HAZARDS IDENTIFICATION

General: The product is NOT listed by the NTP, IARC, or OSHA as a carcinogen. Routes of entry into the body include inhalation, ingestion, and contact.

Emergency Overview: Clear to hazy white solution. Avoid breathing mist. Keep container tightly closed. Use only with adequate ventilation.

Potential Health Effects: as follows.

Eye Exposure: Direct contact with the eye may cause irritation, redness and swelling of the eyes. Chronic exposure to Aluminum salts may cause conjunctivitis.

Skin Exposure: Contact with skin may cause irritation, redness and swelling of the skin.

Ingestion: Oral intake may result in digestive disorders.

Inhalation: Exposure to respiratory system may result in irritation, tearing, watery eyes and nose, and coughing.

4. FIRST AID MEASURES

Eye Exposure: The exposed eyes should be washed immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, for at least 15 - 20 minutes until no evidence of chemical remains. Obtain medical attention immediately.

Skin Exposure: Remove clothing and shoes contaminated with material immediately. Irrigate affected skin areas with soap or mild detergent and large amounts of water for at least 15 - 20 minutes until no evidence of chemical remains. Obtain medical attention immediately.

Ingestion: Medical attention should be obtained immediately. Dilute with water or milk and remove by gastric lavage unless the patient is already vomiting.

Inhalation: Move victim to fresh air. If necessary, perform artificial respiration. Keep victim warm and at rest. Obtain medical attention immediately.

Note to Physician: There is no specific antidote. Treat patient symptomatically and supportively

5. FIRE FIGHTING MEASURES

Flashpoint: Not Applicable.

Flammable Limits: Not Applicable.

Fire Fighting Instructions: Product is a water solution and nonflammable. In a fire, this product may build up pressure and rupture a sealed container. Move container from fire area if possible and/or spray container with water to keep cool. Avoid breathing vapors or dusts and stay upwind.

WARNING: Thermal decomposition of product may release toxic and/or hazardous gases.

Fire Fighting Equipment: Appropriate personal protective equipment and clothing must be donned before entering area. Extinguish fire by using the appropriate agent for type of surrounding fire Product may decompose to HCl in a fire. Firefighters should wear a self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Dry Spills: For large dry spills, sweep up with a minimum of dusting and place into suitable clean, dry containers for later disposal. A high-efficiency particulate filter vacuum should be used to clean up any residue.

Liquid Spills: Contain large liquid spills to keep out of water sources. For small liquid spills, use soda ash to neutralize the spill, an inert material to absorb the product, or wash the product to a chemical sewer.

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7. HANDLING AND STORAGE

Handling: Avoid breathing mist and do not get into eyes, or on skin or clothing. Protective clothing should be worn if there is any possibility of skin or eye contact. Avoid contact with water and other incompatible materials.

Workers should wash affected areas promptly if skin becomes contaminated with material. Non-impervious clothing should be removed immediately if contaminated. Workers should change clothing after work if there is any reasonable probability that clothing is contaminated.

Storage: Material should be stored in a cool, dry, well ventilated area. Product will slowly corrode iron, brass, copper, aluminum and mild steel.

8. EXPOSURE CONTROLS /PERSONAL PROTECTION

Engineering Controls: A local exhaust ventilation system should be provided to meet published exposure limits. See Section 2.

Eye protection: Splash-proof or dust-resistant safety goggles should be worn to prevent eye contact with this substance.

Hand and body: Protective gloves and impervious clothing should be worn to prevent repeated or prolonged skin contact with the product.

Respiratory protection: Airborne concentrations should be maintained below exposure limits through safe work practices or exhaust ventilation. When respiratory protection is required for certain operations, use only NIOSH/MSHA approved respirators if air concentrations exceed the allowable or recommended exposure limits or when working in areas with limited ventilation. The selection of respirator type will depend upon maximum use concentrations required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form:	Clear to hazy white solution.
Molecular Weight:	N/A
Odor:	None
Boiling Point:	220 °F (104 °C)
Melting Point:	No data available
Freezing Point	-13 °F (-11 °C)
Density/Specific Gravity:	1.19 minimum
Evaporation Rate:	No data available
Viscosity:	Less than 100
LFL/UFL:	N/A
Vapor Pressure:	No data available

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Solubility in Water:	100 %
Volatile by Weight:	Water 67 %
pH:	2.3 - 2.7
Flash Point:	Not Applicable

10. STABILITY AND REACTIVITY

Stability: Product is stable under normal temperatures and pressures. Avoid dispersion as a mist in the air.

Reactivity: Product is incompatible with alkalis. Thermal decomposition may release toxic and/or hazardous gases, e.g. HCl.

Under normal temperatures and pressures hazardous polymerization has not been reported to occur.

11. TOXICOLOGICAL INFORMATION

Oral LD_{50} (rats):	12780 mg/kg
Skin Effects (rabbits):	Irritation
Eye Effects (rabbits):	Irritation
Carcinogen Status:	None
Acute Toxicity Level:	Slightly toxic by ingestion
Target Effects:	Poisoning may affect the lungs and the gastrointestinal tract*
Increased Risk from Exposure:	Persons with kidney disorders*

*Based on general information on aluminum salts.

12. ECOLOGICAL INFORMATION

LC_{50} (Ceriodaphnia dubia): 33.2 mg/l

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with Federal, State, and Local regulations.

14. TRANSPORT INFORMATION

DOT: Not Regulated
Hazard Class: None
Identification Number: None

Special Transportation Notes: May be transported in stainless steel tankwagon or in plastic-lined or all plastic drums.

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15. REGULATORY INFORMATION

TSCA Status:	The components of this product are not listed on the TSCA Inventory.
CERCLA Section 103:	Not listed.
SARA Title III:	Not listed.

16. OTHER INFORMATION

NFPA Hazard Classification: as follows.

Health - 1. 1 = Materials only slightly hazardous to health. Can cause irritation if not treated.

Flammability - 1. 1 = Ignites after considerable preheating.

Reactivity - 0. 0 = Normally stable. Not reactive with water.

The information herein is given in good faith but no warranty, expressed or implied, is made.

ABBREVIATIONS

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Service
DOT	Department of Transportation
IARC	International Agency for Research on Cancer
IDLH	Immediately Dangerous to Life or Health
m^3	Cubic meter
mg	Milligram
MSHA	Mine Safety and Health Administration
N/A	Not Applicable
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
TLV	Threshold Limit Value
TWA	Time-Weighted Average

REFERENCES

ACGIH. American Conference of Governmental Industrial Hygienists. Documentation of the Threshold Limit Values and Biological Exposure Indices. Sixth ed. Cincinnati, OH: ACGIH, 1993., p. 46.

ACGIH. American Conference of Governmental Industrial Hygienists. Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices for 1995-1996. Cincinnati, OH: ACGIH, 1995., p. 12.

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GEO SPECIALTY CHEMICALS, INC.

ANSI. American National Standards Institute. American National Standard for Hazardous Industrial Chemicals - Material Safety Data Sheets - Preparation (ANSI Z400.1-1993). New York, New York: ANSI, 1993.

Budavari, S. (11 ed.). The Merck Index - Encyclopedia of Chemicals, Drugs, and Biologicals. Rahway, New Jersey: Merck and CO., Inc., 1983., p. 51.

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Gosselin, R.E., R.P. Smith, H.C. Hodge. Clinical Toxicology of Commercial Products. 5th ed. Baltimore: Williams and Wilkins, 1984., II-128.

OSHA (Occupational Safety and Health Administration), 29 CFR 1910.1000 (Code of Federal Regulations Title 29, part 1910, section 1000), 1994.

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